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AVIFAUNAL SURVEYS IN WHITE FIR
AND PINYON-JUNIPER WOODLANDS OF THE
KINGSTON AND NEW TORK MOUNTAINS

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Avifaunal surveys in white fir and pinyon-juniper
woodlands of the Kingston and New York mountains

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BLM STUDY SUMMARY SHEET

Name of Study: Avifaunal surveys in White Fir and Pinyon - Juniper woodlands of the Kingston and New York Mountains (CA-060-PH7-1791) - San Bernardino Co.

Type of Report (Progress or Final): Final

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Study Objectives: Census bird populations residing in White Fir "islands" in the Kingston and New York Mtns, to compare with data from similar areas of the Clark Mountains.

Summary of Findings (use extra sheet if necessary):

List of Birds which positively breed in White Firs - Kingstons

Broad-tailed Hummingbird
Calliope Hummingbird
Hepatic Tanager

List of Birds which probably (high probability) breed in White Firs

Flammulated Owl	Blue-gray Gnatcatcher
Poorwill	Solitary Vireo
Dusky Flycatcher	Warbling Vireo
Violet-green Swallow	Virginia's Warbler
Scrub Jay	Black-throated Gray Warbler
Bushtit	Brown-headed Grosbeak
Red-breasted Nuthatch	House Finch
Hermit Thrush	Dark-eyed Junco
	Chipping Sparrow

INTRODUCTION

The theory of equilibrium island biogeography (MacArthur and Wilson 1963) has greatly stimulated research on the biota of islands and their history and given this type of research an entire new perspective. Patches of montane habitat in the arid western United States, isolated from other such habitat by expanses of desert scrub, qualify as "islands", and as such are increasingly the targets of research on island biogeography. The avifauna of the montane islands of the Great Basin is under investigation by Johnson (1965, 1973, 1974, 1975). One such island is the white fir (Abies concolor) stand on Clark Mountain in extreme eastern San Bernardino County, California. A thorough baseline survey here in 1939 (Miller 1940) and five consecutive years (1973-77) of recent data has provided a test of the predictions of the equilibrium theory of island biogeography (Johnson MS).

Near Clark Mountain are two other mountain ranges which also contain white fir stands, the Kingston Range and the New York Mountains. These stands differ significantly from Clark Mountain in the number of trees, and as such may provide in comparison with Clark Mountain tests of the predictions concerning island size (and to some extent, distance from source) given by MacArthur and Wilson (1963). Our purpose was to survey bird populations in these islands to provide baseline censuses to which future data can be compared.

We also did general surveys of bird species breeding in these two ranges in anticipation of future studies on natural range extensions in this region. Documented cases of range extensions not influenced by man are very rare, but this region of the southwest is experiencing some remarkable avifaunal changes (Johnson 1974, Johnson and Garrett 1974).

Almost nothing is known concerning the breeding avifaunas of these mountains despite their intrinsically interesting location near Sierran, Great Basin, and Southern California montane regions. Our species lists presented here are the first published for these ranges.

THE KINGSTON RANGE

The Kingston Range is located about 30 km Se. of Tecopa and about 30 km W. of the California-Nevada border in extreme northeastern San Bernardino County, California. The highest point, Kingston Peak at 7323 ft. (2232 m), is 37 km from Clark Mountain (7929 ft. = 2417 m) and 63 km from Charleston Peak (11,919 ft. = 3633 m) in the Spring Mountains of Nevada, the presumed source area for most of the montane avifauna of Clark Mountain, the Kingstons, and the New Yorks.

The dominant vegetation is pinyon (Pinus monophyllum) woodland, with many junipers (Juniperus occidentalis) at lower elevations. The white firs are scattered in two very steep canyons just north of Kingston Peak; there are approximately 150 trees, the largest 34 in. (86 cm) DBH and the tallest about 66 ft. (20 m), between 6400 and 7200 ft. (Hendrickson and Prigge 1975). Most of the trees are between 6800 and 7100 ft. This compares with over 1000 trees on Clark Mountain, the largest 35 in. (87 cm) DBH and the tallest 56 ft. (17 m), between 6250 and 7700 ft. (Hendrickson and Prigge 1975). Pinyon, juniper, and white fir are the only three species of trees in the Kingston Range.

The avifauna of the Kingston Range is virtually unknown. Alden H. Miller (field notes) visited the lower edge of the pinyon zone on 17 June 1939, but recorded few birds; the Kingston Range is included as a locality for a few species in Grinnell and Miller (1944) as a result of this visit. We can find

no other data from the Kingstons. The authors spent two days (21-22 June 1977) along the northern edge of the range between Horse Thief Spring and Kingston Peak. We present our observations below, excluding species seen only below the pinyon zone. Cardiff spent the evening of 21 June and morning of 22 June in the white fir stand.

I. WHITE FIRS (and intermingled pinyons)

A. Direct evidence for breeding:

Broad-tailed Hummingbird. Selasphorus platycercus. One female was seen sitting on a nest.

Calliope Hummingbird. Stellula calliope. One female was seen sitting on a nest. This is a considerable breeding range extension for this species since the nearest known breeding localities are in the southern Sierra Nevadas or San Bernardino Mountains (Grinnell and Miller 1944). This species is not known to breed in the Spring Mountains of Nevada (Johnson 1965).

Hepatic Tanager. Piranga flava. A female was seen sitting on a nest and a male was nearby. This is only the second nesting record for California. The first was recently discovered in the San Bernardino Mountains (Johnson and Garrett 1975). However, this species almost certainly breeds on Clark Mountain (Johnson MS) and in the New York Mountains (see below).

B. Circumstantial evidence for breeding (singing, territorial males plus season and locality makes it highly unlikely these birds were migrants). Species in parentheses are species not restricted to white firs or high elevation pinyon, occurring at a wide range of elevations; for these species the white fir stand is not an island:

Flammulated Owl. Otus flammeolus. One calling at dusk

(Common Poorwill. Phalaenoptilus nuttallii). One calling at dusk

Dusky Flycatcher. Empidonax oberholseri. Eight singing birds

(Violet-green Swallow. Tachycineta thalassina). Ten feeding overhead

(Scrub Jay. Abelocoma coerulescens). Two seen

(Bushtit. Psaltiriparus minimus). Twelve seen

Red-breasted Nuthatch. Sitta canadensis. Three seen

Hermit Thrush. Catharus guttatus. One pair

(Blue-gray Gnatcatcher. Polioptila caerulea). Eight pairs estimated

Solitary Vireo. Vireo solitarius. Two singing birds

Warbling Vireo. Vireo gilvus. Two pairs

Virginia's Warbler. Vermivora virginiae. One pair

- (Black-throated Gray Warbler. Dendroica nigrescens). Ten pairs estimated
(Brown-headed Cowbird. Molothrus ater). One pair
(Black-headed Grosbeak. Pheucticus melanocephalus). One pair
(House Finch. Carpodacus mexicanus). Two pairs
Dark-eyed Junco. Junco hyemalis. Three pairs, "Oregon" subspecies group
Chipping Sparrow. Spizella passerina). Four pairs
- C. Non-breeders (local wanderers, pioneering unmated individuals, transients):
- (Red-tailed Hawk. Buteo jamaicensis). One adult
(American Kestrel. Falco sparverius). One pair
(Common Raven. Corvus corax). Seven overhead
Yellow-rumped Warbler. Dendroica coronata). One female, apparently unmated, "Audubon's" type
(Scott's Oriole. Icterus parisorum). Three birds
(Rose-breasted Grosbeak. Pheucticus ludovicianus). One female; normally very rare in California, this species was much more common than usual in late May and June 1977, appearing at virtually every oasis situation visited by ornithologists.

II. PINYON BELT (5700-7300 ft.)

- Red-tailed Hawk. Buteo jamaicensis. An adult was seen at 6800 ft. Probably nests.
- Great Horned Owl. Bubo virginianus. One was seen at 5800 ft. and another heard at 6800 ft. Almost certainly nests on cliffs in the area.
- Common Poorwill. Phalaenoptilus nuttallii. Several heard on rocky slopes at lower edge of pinyon zone. Undoubtedly breeds.
- White-throated Swift. Aeronautes saxatalis. Fairly common at all elevations. Undoubtedly breeds.
- Costa's Hummingbird. Calypte costae. One ♂ was at 6580 ft. and another at 6660 ft. These are more likely upslope post-breeding wanderers rather than breeders, although some may breed along lower edge of pinyon zone. Both were identified by their high-pitched, bushtit-like chip notes.
- Broad-tailed Hummingbird. Selasphorus platycercus. A ♀ at 6660 ft. in a brushy gully may have been a nesting female. This species nests in similar habitat on Clark Mountain (Johnson MS) and a nest was found in the white firs in this mountain range (see above).
- Hairy Woodpecker. Picoides villosus. One and possibly two birds were seen at 6000 ft.. The time of year makes it highly likely that this

species is breeding in the Kingstons, even though none were seen in the white firs.

Ash-throated Flycatcher. Myiarchus cinerascens. A few individuals were noted from the lower edge of the pinyons up to 6400 ft. Almost certainly nests.

Say's Phoebe. Sayornis saya. A single bird was seen along a cliff face at 6000 ft.

Dusky Flycatcher. Empidonax oberholseri. Four singing, territorial birds were noted 6580-6800 ft.. Very likely breeding although more than one mile from nearest white firs.

Western Wood Pewee. Contopus sordidulus. Four singing birds were seen 6080-6720 ft. A nearly completed nest was being shaped by a bird at 6720 ft. This species is not known to nest on Clark Mountain (Johnson MS), but may nest in the New York Mountains (see below).

Violet-green Swallow. Tachycineta thalassina. Fairly common throughout pinyon belt but most common at upper elevations, particularly around large dead pinyons in burned areas at about 6800 ft.

Scrub Jay. Aphelocoma coerulescens. Two were seen at 6400 ft. Scarce but undoubtedly nests. Much less common in this range than in New York Mountains.

Common Raven. Corvus corax. A few individuals were seen flying overhead at 6800 ft. This species may nest on rock ledges, but if so, forages primarily at lower elevations below pinyon zone.

Plain Titmouse. Parus inornatus. The only birds seen were a family group at 6720 ft. Scarce but definitely breeding. Much less common in this range than in New York Mountains.

Bushtit. Psaltiriparus minimus. Fairly common at all elevations. Family groups noted indicate definite breeding.

Bewick's Wren. Thryomanes bewickii. Fairly common at all elevations. After Blue-gray Gnatcatcher, this is the most common species. Undoubtedly breeds.

Canyon Wren. Catherpes mexicanus. Uncommon at all elevations in suitable habitat. Undoubtedly breeds.

Rock Wren. Salpinctes obsoletus. Fairly common at all elevations. Undoubtedly breeds.

Blue-gray Gnatcatcher. Polioptila caerulea. Common at all elevations. This is the most common species in the range. An adult carrying food, presumably to a nestling or juvenile, indicates definite breeding.

Solitary Vireo. Vireo solitarius. Two birds of unknown race were heard singing at 6520 ft. and 6720 ft. Possibly breeding.

Gray Vireo. Vireo vicinior. One was heard singing by Alden H. Miller at the lower edge of the pinyon zone on 17 June 1939; this is the locality cited as "Horse Spring" (= Horse Thief Spring) by Grinnell and Miller (1944), but was actually some distance from the spring itself. We did not hear or see any on our survey.

Warbling Vireo. Vireo gilvus. One was heard singing persistently at 6880 ft. as was another at 6720 ft. Possibly breeding. Johnson (1965) indicates this species does breed in the Spring Range and Sheep Range away from broadleaved trees.

Orange-crowned Warbler. Vermivora celata. A very bright, non-singing bird at 6880 ft. was possibly an early fall migrant of the coastal race V. c. lutescens. Johnson (MS) has found that the Orange-crowned Warblers on Clark Mountain at this time of year are birds-of-the-year of the subspecies lutescens.

Black-throated Gray Warbler. Dendroica nigrescens. Fairly common above 6000 ft. Undoubtedly breeds.

MacGillivray's Warbler. Oporornis tolmiei. A persistently singing male in a brushy gully at 6720 ft. may have been breeding or searching for a mate. If breeding, this would be a considerable range extension, since the nearest known breeding localities are in the southern Sierra Nevadas and the White Mountains (Grinnell and Miller 1944); this species has been extending its range and is now suspected of breeding in the San Bernardino Mountains and certain ranges in Nevada (N. K. Johnson, pers. comm.).

Scott's Oriole. Icterus parisorum. A few noted from below pinyons up to 6000 ft., and on some sunny, south-facing slopes, as high as 6800 ft. Undoubtedly breeding.

Hepatic Tanager. Piranga flava. At least four birds were seen at 6800-6880 ft. Probably breeding. This species apparently does nest in pure pinyon woodland in Nevada (N.K. Johnson, pers. comm.), and these birds in the Kingstons were over one mile from the nearest white firs.

Black-headed Grosbeak. Pheucticus melanocephalus. Three were noted (two singing males) at 6720-6800 ft. Probably breeding.

Cassin's Finch. Carpodacus cassinii. One ♂ at 6000 ft. was the only bird noted.

House Finch. Carpodacus mexicanus. Fairly common at all elevations. Undoubtedly breeding.

Lesser Goldfinch. Carduelis psaltria. One flying overhead at 6600 ft. was the only one noted.

Rufous-sided Towhee. Pipilo erythrophthalmus. Uncommon in dense thickets from just below pinyon zone in Garrea thickets to 6800 ft. Undoubtedly breeding.

Black-throated Sparrow. Amphispiza bilineata. Fairly common around lower edge of pinyon belt up to 6000 ft., and on some exposed, sunny slopes up to 6720 ft. Undoubtedly breeding.

Black-chinned Sparrow. Spizella atrogularis. Uncommon from 6000 ft. to 6800 ft. Undoubtedly breeding.

Chipping Sparrow. Spizella pusilla. Two were seen, one of which was singing, at 6800 ft. Possibly breeding.

"MISSING" SPECIES

Mountain Chickadee. Parus gambelii. This species is found in both the Clark and New York mountains. We did not see or hear a single individual.

NEW YORK MOUNTAINS

The New York Mountains extend from about 14 km W of Cima east to the Nevada border in extreme eastern San Bernardino County, California. The highest point, New York Peak at 7532 ft. (2296 m), is 37 km S of Clark Mountain and 118 km S of Charleston Peak. The dominant vegetation is pinyon woodland with high densities of juniper at lower elevations. Unlike the Kingston Range or Clark Mountain, golden oak (Quercus chrysolepis) and scrub oak (Quercus dumosa) are widespread. Continuous groves of golden oak with some trees as high as 10 m are found in Live Oak, Keystone, Caruther's, and Fourth of July canyons. There are also a few springs within the pinyon zone which may provide year-round water and outflows from several mine shafts may also produce water all year.

The white fir stand in the New York Mountains consists of about 30 individual trees in a very steep, north-facing canyon about 0.6 km N of New York Peak between 6400 and 7200 ft (Hendrickson and Prigge 1975). Most of the trees are found within 100 m of each other 6900-7100 ft. The largest tree measured 28 in. (71 cm) DBH and about 55 ft. (17 m) in height (Hendrickson and Prigge 1975), and only about 10 trees are taller than 25 ft. A few small golden oaks intermingle with the firs and pinyons, giving this island a bit of habitat complexity lacking in the Kingstons or Clark Moun-

tain.

Virtually nothing has been published concerning the avifauna of the New York Mountains. The only information we can find is that of Hollister (1908) who lists 13 species noted at "New York Mountain" in early June 1905. Some thorough collecting has been done just to the east of the New York Mountains in the Mid Hills and Providence Mountains, which are actually contiguous with the New Yorks (Johnson, Bryant, and Miller 1948). Remsen and Cardiff spent at least 30 person-days in the field in the New Yorks in 1976 and 1977. Remsen and Cardiff spent three hours in the white firs on 20 June 1977. Remsen and Andrew Sanders spent two hours there on 28 April 1976, too early in the season for some of the breeding species to have arrived. Don Roberson and Donna Dittmann were in the white firs for three hours on 29 June 1977. The population estimates for the white firs are a composite of these three visits.

I. WHITE FIRS (and intermingled pinyons and oaks; species in parentheses are not restricted to white firs or high elevation pinyon, but are found at a wide range of elevations - for these species the white fir stand is not an island).

A. Direct evidence for breeding:

Dusky Flycatcher. Empidonax oberholseri. A nest with four eggs was found about 1 m above ground in a white fir sapling on 20 June 1977; a singing male associated with the incubating female.

B. Circumstantial evidence for breeding:

Mountain Chickadee. Parus gambelii. One pair was seen on all three visits. On 28 April 1976, they were seen around an old woodpecker hole (size of Hairy Woodpecker hole, hinting at a possible case of local extinction), and one bird was singing persistently.

(Bushtit. Psaltiriparus minimus). One pair

(Bewick's Wren. Thryomanes bewickii). One pair

(Blue-gray Gnatcatcher. Polioptila caerulea). One pair

(Black-throated Gray Warbler. Dendroica nigrescens). One pair

Painted Redstart. Myioborus pictus. A closely associating pair with one bird singing was present on 20 June 1977 and a singing bird was heard but not seen on 29 June 1977. Very likely nesting in the vicinity. The only nest recorded from California was in the Laguna Mountains, San Diego County (Unitt 1975).

Hepatic Tanager. Piranga flava. A very closely associating pair was seen here on 20 June 1977 and a male was singing on 29 June 1977. Very likely nesting in the vicinity. See comments under Kingston White Firs.

(Black-headed Grosbeak. Pheucticus melanocephalus). One pair

(Rufous-sided Towhee. Pipilo erythrophthalmus). One pair

C. Non-breeders (local wanderers, pioneering unmated individuals, transients, visitors from adjacent habitats):

(Cooper's Hawk. Accipiter cooperi). One immature 20 June 1977

(Red-tailed Hawk. Buteo jamaicensis). Single adults overhead on 28 April 1976 and 20 June 1977.

(Golden Eagle. Aquila chrysaetos). Pair overhead and perched on nearby cliffs 20 June 1977.

(White-throated Swift. Aeronautes saxatalis). 5-8 overhead on all visits; almost certainly nesting in surrounding cliffs.

(Anna's Hummingbird. Calypte anna). One female on 20 June and 29 June 1977

(Violet-green Swallow. Tachycineta thalassina). 6-12 overhead on all visits

(Orange-crowned Warbler. Vermivora celata). One very bright, non-singing bird on 20 June 1977 (see comments under Kinston Pinyon Zone).

Yellow-rumped Warbler. Dendroica coronata. A singing male, apparently unmated, was present 20 June 1977; "Audubon's" type

Cassin's Finch. Carpodacus casinii. A solitary male was present 29 June 1977.

II. PINYON ZONE (5400-7500 ft.)

Cooper's Hawk. Accipiter cooperi. Rare. One pair has nested successfully in Caruther's Canyon at 5700 ft.

Red-tailed Hawk. Buteo jamaicensis. Uncommon. Almost certainly breeds.

Golden Eagle. Aquila chrysaetos. Rare. At least two pairs almost certainly nest in the cliffs and rock outcrops.

Gambel's Quail. Lophortyx gambelii. Uncommon around lower edge of pinyon zone. Undoubtedly breeds.

Mourning Dove. Zenaida macroura. In 1976, fairly common up to 6200 ft. but virtually absent in 1977. Undoubtedly bred in 1976.

Hollister (1908) listed this species as fairly common in the area in June 1905.

Greater Roadrunner. Geococcyx californianus. Uncommon in rocky areas at lower edge in pinyon zone up to about 5800 ft.

Common Screech-Owl. Otus asio. Rare to uncommon at lower elevations. Undoubtedly breeds.

Great Horned Owl. Bubo virginianus. Uncommon. Undoubtedly breeds.

Long-eared Owl. Asio otus. Rare at lower elevations. Has nested in oak thickets in Caruther's and Keystone canyons.

Common Poorwill. Phalaenoptilus nuttallii. Uncommon at lower elevations on rocky slopes. Status unknown above 5800 ft. Undoubtedly breeds.

White-throated Swift. Aeronautes saxatilis. Fairly common at all elevations. Undoubtedly breeds.

Costa's Hummingbird. Calypte costae. Uncommon below 6000 ft. where it may breed.

Anna's Hummingbird. Calypte anna. At least one adult male and two immature males were singing and displaying on territory in oak thickets in Keystone Canyon in late May and June 1977 and a few females were seen in the vicinity. An imm. male was on territory in oak thickets in Fourth of July Canyon in late May 1977. None were seen in these canyons in 1976. Perhaps this species is colonizing the oak woodland and breeding is now strongly suspected. This species has been greatly expanding its range in the last decade.

Ladder-backed Woodpecker. Picoides scalaris. Uncommon below 6000 ft. Almost certainly breeds.

Ash-throated Flycatcher. Myiarchus cinerascens. Uncommon below 5800 ft. Undoubtedly breeds.

Dusky Flycatcher. Empidonax oberholseri. Singing birds were noted at 6800 and 6900 ft. near the white firs. Perhaps nesting, as is suspected in the pinyon zone of the Kingston Range.

Western Wood Pewee. Contopus sordidulus. Three singing birds were noted at 6800, 6600, and 7000 ft. on 20 June 1977. Possibly nesting; nesting at similar elevations in the Kingston Range.

Violet-green Swallow. Tachycineta thalassina. Uncommon at all elevations. Undoubtedly breeding.

Scrub Jay. Aphelocoma coerulescens. Fairly common below 6000 ft., rare above 6000 ft. Numerous juveniles noted indicate certain breeding.

Common Raven. Corvus corax. Uncommon around rocky outcrops where perhaps nesting. Forages in open areas below pinyon zone.

Pinyon Jay. Gymnorhinus cyanocephalus. Fairly common to locally abundant below 6400 ft, uncommon at higher elevations. Juveniles noted indicate certain breeding.

Mountain Chickadee. Parus gambelii. Uncommon in New York Peak-Live Oak Canyon-Keystone Canyon area where as many as 11 birds have been noted in a day. A family group noted on 20 June 1977 indicates certain breeding. Much more common here than on Clark Mountain. Probably nests mainly above 6600 ft. but moves to lower elevations soon after breeding, as family groups were seen as low as 5480 ft. on 20 June 1977.

Plain Titmouse. Parus inornatus. Fairly common below 6000 ft., rare at higher elevations. Numerous juveniles noted indicate certain breeding.

Bushtit. Psaltiriparus minimus. Common below 6000 ft., uncommon at higher elevations. Nests have been found.

Bewick's Wren. Thryomanes bewickii. Common at all elevations. The only other species which is more common is Blue-gray Gnatcatcher. Numerous juveniles noted indicate certain breeding.

Canyon Wren. Catherpes mexicanus. Uncommon in suitable habitat at all elevations. Undoubtedly nesting.

Rock Wren. Salpinctes obsoletus. Uncommon in suitable habitat at all elevations. Juveniles noted indicate certain breeding.

Crissal Thrasher. Toxostoma dorsale. Uncommon in dense oak thickets and washes below 5900 ft. in Caruther's Canyon and perhaps elsewhere. Juveniles noted indicate certain breeding.

Mountain Bluebird. Sialia currucoides. Eleven adults and two juveniles were noted in Caruther's Canyon at 5700 ft. in July 1976. It is unlikely that these birds were migrants at this early date since this species normally does not migrate until October. It is also unlikely that birds in spotted juvenile plumage are migrants. Local breeding is much more likely, especially since a few pairs have been seen in Joshua-tree woodland in the area in late May long after migrants have departed (March). They may nest below the pinyon zone in Joshua-trees and move upslope after breeding. The nearest known breeding localities are in the San Bernardino Mountains and the Panamint Mountains; this species is not known to nest in the Spring Range (Johnson 1965).

Blue-gray Gnatcatcher. Polioptila caerulea. The most common bird at all elevations. Nests have been found.

Gray Vireo. Vireo vicinior. Rare and local below 5800 ft. There were at least four territorial males in lower Keystone Canyon and one in Fourth of July Canyon in 1977. Undoubtedly nesting.

Warbling Vireo. Vireo gilvus. Two persistently singing males were singing in Keystone Canyon at 5600 ft. and 6600 ft. in pinyon-oak woodland on 20 June 1977. Possibly nesting.

Black-throated Gray Warbler. Dendroica nigrescens. Uncommon above 6200 ft. Juveniles noted indicate certain breeding.

Scott's Oriole. Icterus parisorum. Fairly common below 5600 ft, rare up to 6200 ft. Juveniles noted indicate certain nesting. Most common where junipers mix with Joshua-trees at the base of the mountains.

Brown-headed Cowbird. Molothrus ater. Rare at all elevations. Probably breeding.

Hepatic Tanager. Piranga flava. In July 1976, a single ♂ was at 6200 ft. and a closely associating pair was at 5600 ft. in Live Oak Canyon. May have nested at these elevations, but it is more likely that they nested either at higher elevations and had moved downslope or in other mountain ranges and were early fall migrants.

Black-headed Grosbeak. Pheucticus melanocephalus. Uncommon in oak thickets and brushy gullies. Nest have been found.

House Finch. Carpodacus mexicanus. Uncommon at all elevations. Undoubtedly nesting.

Lesser Goldfinch. Carduelis psaltria. Rare. Individuals have been seen sporadically at all elevations. Possibly nesting.

Rufous-sided Towhee. Pipilo erythrophthalmus. Uncommon in brushy areas at all elevations. Juveniles noted indicate certain breeding.

Rufous-crowned Sparrow. Aimophila ruficeps. Rare. At least two pairs have territories in Live Oak Canyon and Keystone Canyon on sunny, rocky, south-facing slopes 5600-6200 ft. A specimen collected on 20 June 1977 proves to be the subspecies scottii of northern Arizona. This is the first record of this form in California.

Black-throated Sparrow. Amphispiza bilineata. Fairly common below 5600 ft. Juveniles noted indicate certain breeding.

Black-chinned Sparrow. Spizella atrogularis. Uncommon in open, rocky, brushy areas 5800-6800 ft. Juveniles noted indicate certain nesting.

MANAGEMENT RECOMMENDATIONS

The importance of the white fir islands to biological research should be evident. These islands will provide much interesting data in the years to come and a test of the predictions of insular biogeography theory. It is therefore essential that these islands be maintained free from disturbances such as mining and tree-cutting and close watch should be kept on the area for forest fires.

The Kingston and New York mountains are in an area important to the study

of biogeography in general. Biotas from the Great Basin, the Sonora Desert, the Colorado Desert, the Sierra Nevadas, and possibly the Southern California mountains mix here. This region of the southwest is undergoing natural changes in avifaunal composition and will be the focus of future study. Thus it is recommended that the habitat integrity of these mountains be maintained as much as possible: grazing, mining, and timber-cutting should be restricted as much as possible. The oak woodlands of the New York Mountains are highly unique for this region, and special attention should be given their welfare.

Several of the species breeding in these mountains are on the Desert Plan Staff "Significant Species List" and will be on the California Department of Fish and Game's "Bird Species of Special Concern List", a list of species diminishing or vulnerable to extirpation from California: Cooper's Hawk, Golden Eagle, Gambel's Quail, Mourning Dove, Long-eared Owl, Broad-tailed Hummingbird, Crissal Thrasher, Gray Vireo, and Hepatic Tanager. Caruther's Canyon, Live Oak Canyon, and Keystone Canyons are particularly critical to the welfare of many of these species, and the habitat integrity of these areas should be maintained to the fullest extent possible. We recommend that these three canyons be placed off-limits for grazing and mining activities.

REFERENCES

- Grinnell, J. and A. H. Miller. 1944. The distribution of the birds of California. Pac. Coast Avif. No. 27. 608 pp.
- Hendrickson, J. and B. Prigge. 1975. White fir in the mountains of the Eastern Mojave Desert of California. Madroño 23: 164-168.
- Hollister, N. 1908. Some birds of the region about Needles, California. Auk 25: 455-462.
- Johnson, D. H., M. D. Bryant, and A. H. Miller. 1948. Vertebrate animals of the Providence Mountains area of California. Univ. of Calif. Publ. Zool. 48: 221-376.
- Johnson, N. K. 1965. The breeding avifaunas of the Sheep and Spring Ranges in southern Nevada. Condor 67: 93-124.
- Johnson, N. K. 1973. The distribution of Boreal avifaunas in southeastern Nevada. Occ. Papers Biol. Soc. Nev. 36: 1-14.
- Johnson, N. K. 1974. Montane avifaunas of southern Nevada: historical changes in species composition. Condor 76: 334-337.
- Johnson, N. K. 1975. Controls of number of bird species on montane islands in the Great Basin. Evolution 29: 545-567.
- Johnson, N. K. and K. L. Garrett. 1974. Interior bird species expand breeding ranges into Southern California. West. Birds 5: 45-56.
- MacArthur, R. H. and E. O. Wilson. An equilibrium theory of insular biogeography. Evolution 17: 373-387.
- Miller, A. H. 1940. A Transition island in the Mojave Desert. Condor 42: 161-163.
- Unitt, P. 1974. Painted Redstarts attempt to breed in California. West. Birds 5: 94-96.

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BORROWER'S

QL
677.5 Avifaunal surveys
.R38 juniper woodlands
c.2 New York Mountains

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